

## **Claims**

1. A static structure for a gas turbine engine comprising a main body made from a porous material, a coating applied to the main body, said coating being a thermal barrier coating or a ceramic coating.
- 5           2. A static structure for a gas turbine engine as claimed in claim 1 including means for supplying cooling air from the gas turbine engine into said porous material so as to cool the same.
- 10          3. A static structure for a gas turbine engine as claimed in claim 1 including means for supplying cooling air to said porous metal for cooling the same, the spent cooling air from said porous metal being fed to the outer surface of said coating through an aperture formed in said coating whereby said exterior surface of said coating is film cooled by said spent cooling air.
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turbine rotor, said main body comprising the substrate made from a porous metal and a coating of a thermal barrier coating or ceramic coating on the exterior of said substrate and adjacent to the tips of said blades, said main body including a hook-like member, an engine casing, said hook-like member fitted into a groove formed in said engine casing for supporting said outer air seal in proximity to the tips of said turbine blades.

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5. For a gas turbine engine as claimed in claim 4 including means for supplying cooling air to openings formed in said porous material, whereby the cooling air flows through the pores of said porous material for cooling the main body.

6. For a gas turbine engine as claimed in claim 5 wherein spent cooling air from said porous material flows through openings formed in said thermal barrier coating or ceramic coating to cool the exterior surface of said thermal barrier coating or ceramic coating.

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7. For a gas turbine engine, stator vane assembly comprising a plurality of circumferentially spaced vanes, said vanes made from a porous metal material and having a coating adjacent to the outer surface thereof, said coating being made from a thermal barrier coating or ceramic, an outer platform, said vane being mounted to said outer platform.

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8. For a gas turbine engine as claimed in claim 7 including means for supplying cooling air to openings formed in said porous material, whereby the cooling air flows through the pores of said porous material for cooling the main body.

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9. For a gas turbine engine as claimed in claim 8 wherein spent cooling air from said porous material flows through openings formed in said thermal barrier coating or ceramic coating to cool the exterior surface of said thermal barrier coating or ceramic coating.

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